not be cleaned out and internally examined if the marine inspector is able to determine by internal examination of at least one forward, one amidships, and one aft double-bottom fuel oil tank, and by external examination of all other double-bottom fuel oil tanks on the vessel, that the general condition of the tanks is satisfactory.

[CGD 84-024, 52 FR 39657, Oct. 23, 1987, as amended at 53 FR 32232, Aug. 24, 1988]

Subpart 189.45—Repairs and Alterations

§189.45-1 Notice required.

- (a) No repairs or alterations affecting the stability or safety of the vessel with regard to the hull, machinery, and equipment shall be made without the knowledge of the Officer in Charge, Marine Inspection.
- (b) Drawings of alterations shall be approved before work is started unless deemed unnecessary by the Officer in Charge, Marine Inspection.
- (c) Drawings will not be required for repairs in kind.
- (d) Notice is not required for repairs or alterations to scientific equipment where the stability or safety of the vessel with regard to the hull and machinery or equipment is not affected.

$\S 189.45-5$ Inspection required.

(a) An inspection, either general or partial depending upon the circumstances, shall be made whenever any important repairs or alterations are undertaken.

Subpart 189.50—Special Operating Requirements

§189.50-1 Inspection and testing required when making alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions.

(a) The provisions of "Standard for the Control of Gas Hazards on Vessels To Be Repaired," NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and issuance of certificates required by this section.

- (b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, burning, welding, or like fire-producing actions shall be made:
- (1) Within or on the boundaries of tanks which have been used to carry combustible liquids or chemicals; or,
- (2) Within spaces adjacent to tanks which have been used to carry Grade D combustible liquids, except where the distance between such tanks and the work to be performed is not less than twenty-five (25) feet; or,
- (3) Within or on the boundaries of fuel tanks; or,
- (4) Within or on the boundaries of tanks carrying Grade B or Grade C flammable liquids or within spaces adjacent to such tanks; or,
- (5) To pipelines, heat coils, pumps, fittings, or other appurtenances connected to such fuel tanks.
- (c) Such inspections shall be made and evidenced as follows:
- (1) In ports or places in the United States or its territories and possessions the inspection shall be made by a marine chemist certificated by the National Fire Protection Association; however, if the services of such certified marine chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicates that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified marine chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that